

ABSTRACT

Energy detect with auto pair select. The present invention is operable without ‘a priori’ knowledge of the pairs’ connectivity. In addition, the present invention is operable within systems performing automatic detection of connectivity in systems that employ the Ethernet based media dependent interface crossover (MDIX). Where there has been some cross-over of pairs within the system, a situation not uncommon in many networks, the present invention is operable to perform energy management even without having any knowledge of the pair connectivity. Knowledge relating to the energy of multiple pairs is used to perform energy detect and management. A state machine operates in performing the analysis of the energy using a qualified energy level. The present invention is also operable within systems that do not employ auto-negotiation. In systems where auto-negotiation is performed, the present invention is performed before the auto-negotiation to determine if an operable partner exists within the network.